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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,506	09/28/2004	Yoshio Okamoto	Furuya Case 1414	4041
23474	7590	12/06/2006	EXAMINER	
FLYNN THIEL BOUTELL & TANIS, P.C.			THERKORN, ERNEST G	
2026 RAMBLING ROAD			ART UNIT	
KALAMAZOO, MI 49008-1631			PAPER NUMBER	

1723

DATE MAILED: 12/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/509,506

Applicant(s)

OKAMOTO ET AL.

Examiner

Ernest G. Therkorn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 4-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 9-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Claims 1-3 and 9-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what immobilization of polysaccharide of at least 80% is intended to mean. Is each polysaccharide 80% immobilized? Are only 8 of 10 polysaccharides immobilized? Page 9, lines 3-5 from the bottom of the October 2, 2006 specification is directed to immobilization rate which would appear to be a different concept than immobilization. As such, the claims are considered to be indefinite.

Claims 1-3 and 9-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. No support can be found for the "immobilization of polysaccharide is at least 80%." Page 9, lines 3-5 from the bottom of the October 2, 2006 specification is directed to immobilization rate which would appear to be a different concept than immobilization. As such, the claims are directed to new matter.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 9, 10, 12, and 13 are rejected under 35 U.S.C. 102(B) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over either Kimata (U.S. Patent No. 5,302,633) or Japan Patent No. 4-202141 in view of PTO Translation No. 06-3034. PTO Translation No. 06-3034 will serve as a translation for Japan Patent No. 4-202141. The claims are considered to read on either Kimata (U.S. Patent No. 5,302,633) or Japan Patent No. 4-202141 in view of PTO Translation No. 06-3034. However, if a difference exists between the claims and either Kimata (U.S. Patent No. 5,302,633) or Japan Patent No. 4-202141 in view of PTO Translation No. 06-3034, it would reside in optimizing the elements of either Kimata (U.S. Patent No. 5,302,633) or Japan Patent No. 4-202141 in view of PTO Translation No. 06-3034. It would have been obvious to optimize the elements of either Kimata (U.S. Patent No. 5,302,633) or Japan Patent No. 4-202141 in view of PTO Translation No. 06-3034 to enhance separation.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Kimata (U.S. Patent No. 5,302,633) or Japan Patent No. 4-202141 in view of PTO Translation No. 06-3034 in view of Murakami (E.P. No. 656,333). At best, the claim differs from either Kimata (U.S. Patent No. 5,302,633) or Japan Patent No. 4-202141 in view of PTO Translation No. 06-3034 in reciting the polysaccharide derivative has a

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polymerizable group at position 6. Murakami (E.P. No. 656,333) (page 3, lines 22-24) discloses the 6-position is a desirable location to link polysaccharides. It would have been obvious to have a polysaccharide derivative with a polymerizable group at position 6 in either Kimata (U.S. Patent No. 5,302,633) or Japan Patent No. 4-202141 in view of PTO Translation No. 06-3034 in view of Murakami (E.P. No. 656,333) because Murakami (E.P. No. 656,333) (page 3, lines 22-24) discloses the 6-position is a desirable location to link polysaccharides.

Claims 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Kimata (U.S. Patent No. 5,302,633) or Japan Patent No. 4-202141 in view of PTO Translation No. 06-3034 in view of Oda (U.S. Patent No. 6,117,325). At best, the claims differ from either Kimata (U.S. Patent No. 5,302,633) or Japan Patent No. 4-202141 in view of PTO Translation No. 06-3034 in reciting use of cellulose phenylcarbamate. Oda (U.S. Patent No. 6,117,325) (column 1, lines 36-39) discloses that cellulose phenylcarbamate is commercialized and widely used because of its high optical resolving powers. It would have been obvious to use cellulose phenylcarbamate in either Kimata (U.S. Patent No. 5,302,633) or Japan Patent No. 4-202141 in view of PTO Translation No. 06-3034 in view of Oda (U.S. Patent No. 6,117,325) because Oda (U.S. Patent No. 6,117,325) (column 1, lines 36-39) discloses that cellulose phenylcarbamate is commercialized and widely used because of its high optical resolving powers.

The remarks urge patentability based upon the immobilization of polysaccharide being of at least 80%. However, this term is considered to be both indefinite and

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directed to new matter. Inasmuch as the recited process steps and the process steps of both Kimata (U.S. Patent No. 5,302,633) and Japan Patent No. 4-202141 in view of PTO Translation No. 06-3034 are the same, the immobilization would appear to be the same.

The remarks urge that Kimata (U.S. Patent No. 5,302,633) does not show the use of monomers. However, Kimata (U.S. Patent No. 5,302,633) on column 5, lines 43-53 discloses use of monomers.

The remarks urge that Japan Patent No. 4-202141 in view of PTO Translation No. 06-3034 does not show the use of monomers. However, the PTO Translation No. 06-3034 on page 7, the last sentence of the second paragraph discloses use of monomers.

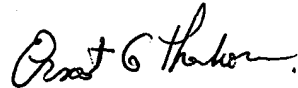
THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication should be directed to E. Therkorn at telephone number (571) 272-1149. The official fax number is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ernest G. Therkorn
Primary Examiner
Art Unit 1723

EGT
December 4, 2006